

WHAT IS CLAIMED IS:

1. A vibration type drive unit comprising:
a plate-like elastic body;
an electromechanical energy conversion element
5 fixed to a side surface of the plate-like elastic
body;
a column-like elastic body formed on a central
portion on a surface of the plate-like elastic body
which differs from the surface to which the
10 electromechanical energy conversion element is fixed;
and
a moving element which is in contact with the
surface of the plate-like elastic body,
wherein when an alternating signal is supplied
15 to the electromechanical energy conversion element, a
progressive wave is generated on the surface of the
plate-like elastic body, and the moving element is
driven by the progressive wave.
- 20 2. The vibration type drive unit according to
claim 1, wherein the column-like elastic body has a
shape such that the column-like elastic body
protrudes in a direction perpendicular to the surface
to which the electromechanical energy conversion
25 element is fixed.
3. The vibration type drive unit according to

claim 1, further comprising a supporting member fixing the plate-like elastic body and the column-like elastic body, wherein the moving element rotates and moves about the supporting member.

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4. A vibration type drive unit comprising:

a vibrator made of an elastic body to which an electromechanical energy conversion element is fixed; and

10 a moving element which is in contact with a surface of the vibrator,

wherein the vibrator is in contact with the moving element by a surface of the vibrator which is positioned in the side opposite to the surface to
15 which the electromechanical energy conversion element is fixed, a part of the vibrator opposes an inner diameter portion of the moving element, and

when an alternating signal is supplied to the electromechanical energy conversion element, a
20 progressive wave is generated on the surface of the plate-like elastic body so that the moving element is driven by the progressive wave.

5. The vibration type drive unit according to
25 claim 4, further comprising a supporting member fixing a member constructing the vibrator, wherein the moving element rotates and moves about the

supporting member.

6. A vibration type drive unit comprising:

a vibrator made of an elastic body to which an
5 electromechanical energy conversion element is fixed;
and

a moving element which is in contact with a
surface of the vibrator,

wherein when an alternating signal is supplied
10 to the electromechanical energy conversion element,
the vibrator generates a plurality of bending
vibrations which are displaced in a direction
approximately perpendicular to a predetermined
surface of the electromechanical energy conversion
15 element and a plurality of bending vibrations which
are displaced in a direction approximately parallel
to the predetermined surface, and

the moving element is driven by a progressive
wave generated by synthesis of the plurality of
20 bending vibrations that are displaced in the
approximately perpendicular direction.

7. The vibration type drive unit according to
claim 6, wherein the degrees of the plural bending
25 vibrations which are displaced in the direction
approximately perpendicular to the predetermined
surface of the electromechanical energy conversion

element are the same mutually, and the degrees of the plural bending vibrations which are displaced in the direction approximately parallel to the predetermined surface are the same mutually.

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8. The vibration type drive unit according to claim 7, wherein the degrees of the plural bending vibrations which are displaced in the direction approximately perpendicular to the predetermined surface of the electromechanical energy conversion element differ from the degrees of the plural bending vibrations which are displaced in the direction approximately parallel to the predetermined surface.

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9. The vibration type drive unit according to claim 6, further comprising a supporting member fixing a member constructing the vibrator, wherein the moving element rotates and moves about the supporting member.

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